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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Nobuo Onuma

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CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
15975 ALTON PARKWAY
IRVINE, CA 92618-3731

EXAMINER

PHAM, THIERRY L

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/723,741	Applicant(s) ONUMA ET AL.	
	Examiner THIERRY L. PHAM	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/20/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the following communication: RCE filed on 5/20/2008.
- Claims 1-16 are currently pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/20/2008 has been entered.

Claim Rejections - 35 USC § 101

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is a computer related invention. The Computer-Implemented Invention Guidelines issued by the U.S. Patent and Trademark Office describe the procedures for examining such inventions.

The first step is to determine whether the invention as defined by the claims falls within one of the three following categories of unpatentable subject matter: (1) Functional descriptive material such as a data structure *per se* or a computer program *per se*, (2) Non-functional descriptive material such as music, literary works or pure data, embodied on a computer readable medium; or (3) A natural phenomenon such as energy or magnetism. The invention as defined by the claims is not a natural phenomenon or pure data, however, it is a computer program *per se*, which does not mount/store on any computer-readable medium; therefore, these claims are rejected for non-statutory basis.

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Medium as cited in claim 15 is directed to a non-statutory subject matter, for example, medium can be interpreted as a “paper media” containing printed computer program instructions. The examiner recommends the applicants to replace “medium” with “computer readable medium” so it compliances with **35 U.S.C. 101**.

Claim 15 is claiming a program per se. Claims 5-8 are directed to non-statutory functional descriptive material. “Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. “Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program’s functionality, as nonstatutory functional descriptive material” (see Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carney et al (US 6453268), in view of Lester et al (US 7072065).

Regarding claim 1, Carney discloses a print control device (printer manager 2, wherein print manager 2 can be any device such as server, desktop computer, laptop computer, workstation, mainframe, PDA, and etc, col. 4, lines 1-5) comprising:

- data processing means (printer manager 2 for creating and transferring print data to printer 4 via network 6, fig. 1, col. 4, lines 44-50) for generating and transferring print data in response to a print request (print jobs, col. 4, lines 24-25);
- acquisition means (monitor program 12, fig. 1 & fig. 2, col. 5, lines 32-44) for acquiring print conditions (e.g. number of pages, col. 5, lines 32-44, wherein print conditions such as paper type, number of pages, total bytes, PDL type, and etc that are associated with print request are well known in the art) in the print request;
- determining means (print monitor 12, fig. 1) for variably determining a frequency (frequency of monitoring, fig. 2a) of checking whether any print status request is issued (fig. 2b, col. 5, lines 30-40 and col. 7, lines 25-40), based on the print condition acquired by the acquisition means; and
- checking means (print monitor 12 for checking any print status request, fig. 2b, col. 5, lines 30-40 and col. 7, lines 25-40) for checking whether any print status is issued, the checking performed every time (monitoring is initiated every time a print job is generated and/or transferred to printer, col. 6, lines 62-67) said data processing means generates or transfers print data corresponding to the frequency determined by the determining means.

Carney discloses a method for monitoring plurality of print statuses (e.g. out of paper, paper jam, out of toner, cover open, and etc) by selecting monitoring frequency and/or intervals, but does not teach and/or suggest said monitoring including "print cancels command".

Lester, in the same field of endeavor for printing and printer status, teaches a well known example of monitoring printer status and/or request including "print cancel command" (figs. 4-5, col. 3, lines 32-67 and col. 4, lines 19-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print monitor 12 of Carney to include a method for monitoring print cancel request as taught by Lester so that printer monitor 12 of Carney not only monitoring print

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statuses such as paper jam, toner empty, but also print cancel request; therefore, improves the system capability. Ability to detect print cancel print has plurality of advantages: for example, it prevents unwanted jobs from printing, thereby, saving print media and toners/inks; (2)

Therefore, it would have been obvious to combine Carney with Lester to obtain the invention as specified in claim 1.

Regarding claim 2, Lester further discloses a print control device according to claim 1, further comprising receiving means (communication ports, fig. 3) for receiving the print cancel command of the print data through a user interface (control panel, fig. 4-7), wherein the checking means checks whether the print cancel command is received through the receiving means.

Regarding claim 3, Lester further discloses a print control device according to claim 1, wherein the frequency is a print throughput that is determined based on estimated time (cancellation period, figs. 5-7, col. 4, lines 5-52) needed to perform unit throughput required in the print conditions.

Regarding claim 4, Lester further discloses a print control device according to claim 1, wherein the frequency is determined so that the product of the frequency and estimated time needed (cancellation period can be fixed or varied, figs. 5-7, col. 4, lines 5-52) to perform unit throughput required in the print conditions remains unchanged under varying print conditions.

Regarding claim 5, Lester further discloses a print control device according to claim 1, wherein the frequency determined based on the print conditions is a print throughput, and wherein the print throughput is determined based on print cancel intervals (print cancel intervals based upon how many times the print cancel button is activated, figs. 5-7, col. 4, lines 5-52).

Regarding claim 6, Lester further discloses a print control device according to claim 1, further comprising suspending means which suspends (figs. 5-7, col. 4, lines 32-52) the generation or the transfer of the print data by a printer driver if the print cancel command has been received.

Regarding claim 7, Lester further discloses a print control device according to claim 1, wherein the print conditions (col. 6, lines 6-60) comprise at least one of a sheet size, a resolution, and a designation of one of color printing or monochrome printing.

Regarding claims 8-14: Claims 8-14 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 8-14; therefore, claims 8-14 are rejected for the same rejection rationale/basis as described in claims 1-7 above.

Regarding claims 15-16: Claims 15-16 recite limitations that are similar and in the same scope of invention as to those in claim 1 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 3) for storing computer programs, hence claims 15-16 would be rejected using the same rationale as in claim 1

Response to Arguments

Applicant's arguments with respect to claims 1, 8, 15-16 have been considered but are moot in view of the new ground(s) of rejection (new ground of rejection via using different interpretations of previously cited prior art of record, Carney in view of Lester).

- Regarding claims 1, 8, and 15-16, the applicants argued the cited prior art of record (US 6453268 to Carney et al; US 7072065 to Lester et al) fail to teach and/or suggest "frequency of monitoring a print cancel".

In response, the examiner disagrees. Carney clearly teaches an user interface as shown in fig. 2a that allows user to select "frequency of monitoring". The "frequency of monitoring" includes "high, above average, average, below average, and low". Fig. 3 further shows the time frame/intervals associated with each frequency, for example, the time interval for "high" frequency of monitoring of a "polling mode: time between polls if no jobs" is 15 seconds. In other words, the time interval is calculated based upon user's selected frequency of monitoring

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(e.g. high, above average, average, below average, low). Furthermore, user can manually enter the frequency of monitoring value between 1 and 10 (see col. 11, lines 4-8) and level of monitoring. Therefore, arguments as presented by the applicants are not persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THIERRY L. PHAM whose telephone number is (571)272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thierry L Pham/

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/Edward L. Coles/

Supervisory Patent Examiner, Art Unit 2625

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